CLASS 570, ORGANIC COMPOUNDS -- PART OF THE CLASS 532-570 SERIES

SUBCLASSES

101 HALOGEN CONTAINING:
This subclass is indented under subclass 1. Compound under Class 532, ... which contain an atom of halogen.

(1) Note. Due to hierarchical position of this subclass, compounds hereunder contain only carbon and halogen, or carbon hydrogen and halogen.

(2) Note. The patents found in this particular subclass relate primarily to processes of preparing saturated halogen containing compounds not specifically provided for below.

SEE OR SEARCH CLASS:
204, Chemistry: Electrical and Wave Energy, subclasses 157.15+ for chemical preparation of a compound which contains carbon and halogen or carbon, hydrogen, and halogen by utilizing wave energy; and subclass 169 for chemical preparation of a compound which contains carbon and halogen or carbon, hydrogen, and halogen by utilizing an electrostatic field or electrical discharge.
588, Hazardous or Toxic Waste Destruction or Containment, subclasses 206 through 225 and 255 for the destruction or containment of organic hazardous or toxic waste containing halogen, sulfur, oxygen, nitrogen, or metals.

102 With preservative or stabilizer:
This subclass is indented under subclass 101. Halogen containing compound containing an additional ingredient intended to prevent or decrease chemical or physical change of the compound.

(1) Note. A preserved compound claimed as having a utility provided for in the composition classes is classified with the composition.However, a mere recital of the destabilizing effect or medium guarded against, e.g., “in contact with aluminum”, etc., will not prevent placement of a patent in this or indented subclasses.

SEE OR SEARCH THIS CLASS, SUBCLASS:
177+, 211, 238+, or 262+, for a process of increasing the stability of the appropriate compound by purification.
264, for a process of treating a compound of this class to increase stability which does not involve purification or the use of an added agent which remains as part of the composition.

SEE OR SEARCH CLASS:
134, Cleaning and Liquid Contact With Solids, for a process of cleaning using a halogenated solvent, particularly subclass 31 for vapor degreasing.
252, Compositions, subclass 364 for solvents generally which contain halogen containing compounds; subclasses 397+ for compositions which inhibit physical or chemical change, per se; and subclass 68 for refrigerants which contain halogen containing compounds.
422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, subclasses 41+ for manipulative ongoing methods of storage or protections of a liquid, particularly subclass 42 for preventing evaporation.
510, Cleaning Compositions for Solid Surfaces, Auxiliary Compositions Therefor, or Processes of Preparing the Compositions, subclasses 201+, 245+, and 405 for solvent-type cleaning compositions which may include halogen-containing compounds, particularly subclasses 204+, 254+, 273, and 412, as well as other appropriate subclasses.

103 To prevent or reduce polymerization:
This subclass is indented under subclass 102. Compositions wherein the stabilizer or preservative prevents the halogen containing compound from reacting with itself to produce a high molecular weight, usually solid product.

(1) Note. There must be a positive disclosure or claim that polymerization is being prevented or reduced. In cases of doubt, the patent will be placed below and cross-referenced to this or indented subclasses if desired.

104 Nitrogen bonded directly to oxygen in preservative or stabilizer:
This subclass is indented under subclass 103. Composition wherein the preservative or stabilizer contains an atom of nitrogen bonded directly to oxygen, e.g., nitro, nitros, amine oxide, or oxime, etc.

105 Oxygen single bonded directly to benzene ring in preservative or stabilizer:
This subclass is indented under subclass 103. Composition wherein the preservative or stabilizer contains an atom of oxygen bonded directly to a benzene ring, e.g., phenols, phenol ether, etc.

106 Sulfur containing preservative or stabilizer:
This subclass is indented under subclass 103. Composition wherein the preservative or stabilizer contains sulfur.

107 Acetylenic unsaturation containing preservative or stabilizer:
This subclass is indented under subclass 102. Composition wherein the preservative or stabilizer contains a carbon to carbon triple bond.

108 Hydroxy, bonded directly to carbon, or ether containing:
This subclass is indented under subclass 107. Composition wherein the preservative or stabilizer also contains a hydroxy group bonded directly to carbon or an ether group in addition to a carbon to carbon triple bond, e.g., acetylenic alcohol, etc.

109 Nitrogen containing hetero ring in preservative or stabilizer:
This subclass is indented under subclass 102. Composition wherein the preservative or stabilizer contains a ring having three or more members and containing at least one atom of each of carbon and nitrogen and optionally oxygen, sulfur, selenium, or tellurium as the only other ring members.

110 Acyclic nitro containing preservative or stabilizer:
This subclass is indented under subclass 102. Composition wherein the preservative or stabilizer contains a nitro group bonded directly to a carbon atom which is not part of a ring.

111 Nitrogen, other than as ammonia or the ammonium ion in preservative or stabilizer:
This subclass is indented under subclass 102. Composition wherein the preservative or stabilizer contains nitrogen in a form other than ammonia, per se, or ammonium ion, e.g., amines.

112 Nitrile:
This subclass is indented under subclass 111. Composition wherein the preservative or stabilizer contains nitrogen triply bonded to carbon.

113 Imine (e.g., hydrazone, oxime, etc.):
This subclass is indented under subclass 111. Composition wherein the preservative or stabilizer contains nitrogen doubly bonded to carbon.

114 Oxygen containing hetero ring in preservative or stabilizer:
This subclass is indented under subclass 102. Composition wherein the preservative or stabilizer contains a ring having three or more members and containing at least one atom each of carbon and oxygen and optionally sulfur, selenuim, or tellurium as the only other ring members.

115 Hetero ring containing plural ring oxygens:
This subclass is indented under subclass 114. Composition wherein the ring contained in the preservative or stabilizer contains two or more atoms of oxygen.

116 Oxirane ring:
This subclass is indented under subclass 114. Composition wherein the ring contained in the preservative or stabilizer contains only three atoms, two of which are carbon and one of which is oxygen.

117 Carbonyl containing preservative or stabilizer:
This subclass is indented under subclass 102. Composition wherein the preservative or stabilizer contains carbon doubly bonded to oxygen.

118 Hydroxy, bonded to carbon, or ether containing preservative or stabilizer:
This subclass is indented under subclass 102. Composition wherein the preservative or stabilizer contains hydroxy bonded directly to carbon or an oxygen atom bonded directly to two carbon atoms by single bonds.

119 Phenolic:
This subclass is indented under subclass 118. Composition wherein a carbon atom bonded to the hydroxy or ether oxygen is part of a benzene ring.

120 Sulfur containing preservative or stabilizer:
This subclass is indented under subclass 102. Composition wherein the preservative or stabilizer contains sulfur.

(1) Note. The sulfur may be in any form including organic and inorganic compounds, e.g., mercaptan, sodium sulfite, etc.

121 Hydrocarbon, halocarbon or halohydrocarbon preservative or stabilizer:
This subclass is indented under subclass 102. Composition wherein the stabilizer contains carbon and hydrogen only, carbon and halogen only, or carbon hydrogen, and halogen only.

122 Acyclic carbon to carbon unsaturation containing:
This subclass is indented under subclass 121. Composition wherein the hydrocarbon, halocarbon, or halohydrocarbon preservative or stabilizer contains carbon to carbon unsaturation which is not part of a ring.

123 Fluorine containing:
This subclass is indented under subclass 101. Compound containing at least one atom of fluorine, and a process for the manufacture or treatment of such compound not classified elsewhere.

(1) Note. This subclass primarily contains patents drawn to the production of saturated fluorine containing compounds by methods not provided for below.

124 Product:
This subclass is indented under subclass 123. Compound .

(1) Note. In order to be classified in this or indented subclasses, a patent must contain a claim to a compound classified hereunder.

125 Polymer or unsaturated monomer:
This subclass is indented under subclass 125. Compound wherein two or more unsaturated molecules are added together through the unsaturation.

SEE OR SEARCH CLASS:
526, Synthetic Resins or Natural Rubbers, subclass 249 for polymers of this type which are synthetic resins.

126 Fluorine is sole halogen:
This subclass is indented under subclass 125. Compound wherein the only halogen present is fluorine.

SEE OR SEARCH CLASS:
526, Synthetic Resins or Natural Rubbers, subclasses 250+ for polymers of this type which are synthetic resins.

127 Benzene ring containing:
This subclass is indented under subclass 124. Compound which contains at least one benzene ring.

128 Acyclic unsaturation containing:
This subclass is indented under subclass 127. Compound which contain carbon to carbon unsaturation which is not part of a ring.

129 Plural carbocyclic rings containing:
This subclass is indented under subclass 127. Compound which contains at least two carbocyclic rings, at least one of which is a benzene ring.

130 Plural carbocyclic rings containing:
This subclass is indented under subclass 124. Compound which contains two or more carbocyclic rings.

SEE OR SEARCH CLASS:
552, Organic Compounds, subclass 653 for fluorinated derivatives of Vitamin D compounds, cholecalciferols, activated 7-dehyrocholesterols, dihydrotachysterols, 3-5 cyclovitamin D compounds, etc.

131 Carbocyclic ring contains six carbon atoms:
This subclass is indented under subclass 124. Compound which contains a ring consisting of six and only six carbon atoms.

132 Carbocyclic ring contains four carbon atoms:
This subclass is indented under subclass 124. Compound which contains a ring consisting of four and only four carbon atoms.

133 Carbocyclic ring contains three carbon atoms:
This subclass is indented under subclass 124. Compound which contains a ring consisting of three and only three carbon atoms.

134 Acyclic:
This subclass is indented under subclass 124. Compound which does not contain a ring.

135 Unsaturated:
This subclass is indented under subclass 134. Compound containing carbon to carbon unsaturation.

136 Fluorine is sole halogen:
This subclass is indented under subclass 135. Compound wherein the only halogen present is fluorine.

137 Bromine or iodine containing:
This subclass is indented under subclass 134. Compound which contain bromine or iodine.

138 Polymerization of unsaturated compound:
This subclass is indented under subclass 123. Process where two or more molecules of an unsaturated compound are added together to produce a larger molecule.

(1) Note. The unsaturated molecules added together may be the same (homopolymer) of different (copolymer).

139 With chain terminating agent (e.g., telogen, etc.):
This subclass is indented under subclass 138. Process wherein the polymerization is conducted in the presence of an agent which terminates the growing polymer chain.These agents are often called chain stoppers, chain transfer agents, or telogens, etc.

140 From organic compound containing an element other than carbon, hydrogen, or halogen:
This subclass is indented under subclass 123. Process wherein a fluorine containing compound is prepared in such a way that the source of at least an atom of carbon in the compound is an organic compound containing an element other than carbon, hydrogen, or halogen.

141 Nitrogen containing:
This subclass is indented under subclass 140. Process wherein the organic compound contains nitrogen.

142 Oxygen containing:
This subclass is indented under subclass 140. Process wherein the organic compound contains oxygen.

143 Preparing benzene ring containing compound:
This subclass is indented under subclass 123. Process wherein a compound containing a benzene ring is prepared.

144 Haloalkyl containing compound:
This subclass is indented under subclass 143. Process of preparing a compound containing a benzene ring having a substituent containing carbon and halogen which substituent is not part of a benzene ring.

145 By substituting halogen for a different halogen in haloalkyl group:
This subclass is indented under subclass 144. Process wherein a halogen in the haloalkyl group is exchanged for a different halogen.

146 Forming the benzene ring:
This subclass is indented under subclass 143. Process wherein a benzene ring containing compound is prepared from starting material, none of which contains a benzene ring.

147 Substituting halogen for different halogen or hydrogen:
This subclass is indented under subclass 143. Process wherein halogen is exchanged for a different halogen or hydrogen.

148 Forming alicyclic ring from benzene ring:
This subclass is indented under subclass 123. Process wherein a benzene ring is converted to an alicyclic ring.

149 Forming alicyclic ring from acyclic compound:
This subclass is indented under subclass 123. Process wherein an alicyclic ring is made from starting material, none of which contains a ring.

150 Preparing from elemental carbon, carbon oxide, or carbon disulfide:
This subclass is indented under subclass 123. Process wherein the source of at least one atom of carbon in the fluorine containing compound is elemental carbon, a carbon oxide, or carbon disulfide.

151 Isomerization:
This subclass is indented under subclass 123. Process wherein a fluorine containing compound is converted into another containing compound of differing structure but of the same empirical formula as the starting compound.

152 Decreasing molecular weight of polymer of indeterminate structure:
This subclass is indented under subclass 123. Process of decreasing the molecular weight of a polymer of indeterminate structure, e.g., cracking, etc.

(1) Note. A polymer of indeterminate structure is a substance made by adding together two or more smaller molecules and does not consist of a single, identifiable molecular species, but rather contains a variety of molecules of varying molecular weight which are only identifiable by their average properties, e.g., synthetic resins, etc.

153 Preparing unsaturated compound:
This subclass is indented under subclass 123. Process wherein a compound containing carbon to carbon unsaturated is prepared.

154 From acetylenically unsaturated compound:
This subclass is indented under subclass 153. Process wherein a reactant contains a carbon to carbon triple bond.

155 By dehalogenation or dehydrohalogenation of adjacent carbon atoms in a compound:
This subclass is indented under subclass 153. Process wherein carbon to carbon unsaturation is obtained in a compound by the removal of hydrogen and halogen from adjacent carbon atoms.

156 Catalyst utilized:
This subclass is indented under subclass 155. Process which employs a catalyst.

157 Alkali or alkaline earth metal containing catalyst:
This subclass is indented under subclass 156. Process wherein the catalyst contains an atom of an alkali or an alkaline earth metal.

158 Zinc containing catalyst:
This subclass is indented under subclass 156. Process wherein the catalyst contains an atom of zinc.

159 From methane or halomethane:
This subclass is indented under subclass 153. Process wherein a source of carbon in the product is methane or a halomethane.

160 Substituting fluorine for a different halogen:
This subclass is indented under subclass 153. Process wherein an atom of fluorine replaces a different halogen in the compound.

161 Utilizing halogen fluoride or a mixture of elemental fluorine and another elemental halogen:
This subclass is indented under subclass 123. Process wherein a compound of fluorine and another halogen or a physical mixture of ele-

mental fluorine with another elemental halogen is employed.

162 Utilizing a compound containing silicon and fluorine:
This subclass is indented under subclass 123. Process wherein a compound containing silicon and fluorine is employed.

163 Transhalogenation or disproportionation:
This subclass is indented under subclass 123. Process wherein halogen is transferred from one molecule of a carbon compound to another.

(1) Note. The transfer may be between unlike molecules or two molecules of the same compound.

164 By reacting with hydrogen fluoride:
This subclass is indented under subclass 123. Process wherein the source of fluorine introduced into a carbon compound is hydrogen fluoride.

165 Catalyst utilized:
This subclass is indented under subclass 164. Process employing a catalyst.

166 Metal halide containing catalyst:
This subclass is indented under subclass 165. Process wherein the catalyst contains a compound containing a metal and halogen.

167 Antimony halide containing catalyst:
This subclass is indented under subclass 166. Process wherein the metal is antimony.

168 Transition metal halide containing catalyst:
This subclass is indented under subclass 166. Process wherein the metal is a transition metal.

(1) Note. The transition metals are elements in which an inner electron shell rather than an outer shell is partially filled.In the periodic chart they include elements 21 through 30 (scandium through zinc), 39 through 48 (yttrium through cadinum), 57 through 80 (lathanum through mercury), and 89 through 103 (actinium through lawrencium).

169 Metal oxide containing catalyst:
This subclass is indented under subclass 165. Process wherein the catalyst contains a compound which contains a metal and oxygen.

170 Substituting halogen for a different halogen:
This subclass is indented under subclass 123. Process wherein a halogen is replaced by a different halogen.

171 Increasing the number of carbons in the compound:
This subclass is indented under subclass 123. Process wherein the product compound contains more carbon atoms than any reactant.

172 Utilizing unsaturated compound:
This subclass is indented under subclass 171. Process wherein one of the reactants contains carbon to carbon unsaturation.

173 Decreasing the number of carbons in the compound (e.g., cracking, etc.):
This subclass is indented under subclass 123. Process wherein all products have less carbon atoms than any reactant.

174 Introducing bromine or iodine:
This subclass is indented under subclass 123. Process wherein bromine or iodine is introduced into a fluorine containing compound.

175 Utilizing unsaturated compound:
This subclass is indented under subclass 123. Process wherein a compound contains carbon to carbon unsaturation.

176 Replacing halogen with hydrogen:
This subclass is indented under subclass 123. Process wherein an atom of halogen is removed and replaced by hydrogen.

177 Purification or recovery:
This subclass is indented under subclass 123. Process of purifying or recovering a fluorine containing compound.

178 Including distillation:
This subclass is indented under subclass 177. Process wherein the purification or recovery includes distillation.

SEE OR SEARCH CLASS:

203, Distillation: Processes, Separatory, for a process of distillation, per se; see the definition to that class, particularly section III, B for the lines between Class 203 and this class (570) where combined subject matter is involved.

179 Solid sorbent utilized:
This subclass is indented under subclass 177. Process wherein a solid sorbent is utilized in the process.

180 Including extraction with organic liquid:
This subclass is indented under subclass 177. Process which includes extraction with an organic liquid.

181 Product:
This subclass is indented under subclass 101. Compound .

(1) Note. In order to be classified in this or indented subclasses, a patent must contain a claim to a compound classified hereunder.

182 Benzene ring containing:
This subclass is indented under subclass 181. Compound which contains a benzene ring.

183 Polycyclo ring system:
This subclass is indented under subclass 182. Compound which contains two rings having two or more carbon atoms in common.

(1) Note. These systems are often referred to in the art as bridged (three or more atoms in common) or fused (two atoms in common).

184 Plural benzene rings bonded directly to the same acyclic carbon or attached by an acyclic carbon chain:
This subclass is indented under subclass 182. Compound which contains two or more benzene rings bonded directly to the same carbon which is not part of a ring or bonded through two or more carbons, none of which is part of a ring.

185 Benzene ring and halogen bonded directly to the same acyclic carbon chain:
This subclass is indented under subclass 182. Compound which contains a benzene ring and a halogen bonded directly to a carbon atom which is not part of a ring or a benzene ring attached to a halogen atom through a chain of two or more carbon atoms, none of which is part of a ring.

186 Alicyclic ring containing:
This subclass is indented under subclass 181. Compound which contain a ring of three or more carbon atoms, which ring is not a benzene ring.

187 Polycyclo ring system:
This subclass is indented under subclass 186. Compound which contains a ring system of at least two rings which have tow or more carbon atoms in common.

(1) Note. These compounds are usually referred to in the art as fused (only two atoms in common) or bridged (three or more atoms in common).

SEE OR SEARCH CLASS:

552, Organic Compounds, subclass 653 for halogenated derivatives of Vitamin D compounds, cholecalciferols, activated 7-dehyrocholesterols, dihydrotachysterols, 3-5 cyclovitamin D compounds, etc.

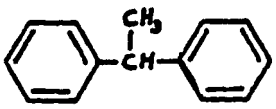
188 Plural rings containing:
This subclass is indented under subclass 186. Compound which contains two or more alicyclic rings.

189 Alicyclic carbon to carbon unsaturation containing:
This subclass is indented under subclass 181. Compound which contains carbon to carbon unsaturation which is not part of any ring.

190 Processes of preparing, purifying, or recovering benzene ring containing compound:
This subclass is indented under subclass 101. Process wherein a benzene ring containing compound is prepared, purified, or recovered.

191 **Preparing acyclic haloalkyl group containing compound:**
This subclass is indented under subclass 190. Process of preparing a benzene ring containing compound which contains a halogen atom bonded indirectly to a benzene ring through one or more carbon atoms, none of which is part of a ring.

192 **Halo, 1,1-diphenylethane or ring substituted Derivative thereof prepared DDT, etc.):**
This subclass is indented under subclass 191. Process wherein the compound prepared has the 1,1-diphenylethane structure, (i.e., see figure below) wherein at least one hydrogen atom is replaced with halogen and in addition may have other substituents on the ring carbon atoms.



193 **Having acyclic carbon to carbon unsaturation:**
This subclass is indented under subclass 191. Process wherein the compound prepared contains carbon to carbon unsaturation which is not part of a ring.

194 **Bonding haloalkyl group directly to benzene ring:**
This subclass is indented under subclass 191. Process wherein an aliphatic carbon atom bonded directly or indirectly to halogen is bonded directly to a benzene ring, or wherein an aliphatic carbon atom is bonded directly to a benzene ring, a halogen is bonded directly or indirectly thereto.

195 **Oxygen containing organic compound reactant:**
This subclass is indented under subclass 194. Process wherein an oxygen containing compound acts as a source of carbon or halogen in the product.

196 **Halogenation of acyclic carbon:**
This subclass is indented under subclass 191. Process wherein halogen is bonded directly to an acyclic carbon atom.

197 **Catalyst utilized:**
This subclass is indented under subclass 196. Process which employs a catalyst.

198 **Halogen containing catalyst:**
This subclass is indented under subclass 197. Process wherein the catalyst contains an atom of halogen.

199 **Bonding benzene rings to the same acyclic carbon or to an acyclic carbon chain:**
This subclass is indented under subclass 190. Process wherein plural benzene rings are bonded to the same carbon atom which is not part of any ring or are bonded to each other through a chain of two or more carbon atoms, none of which is a part of any ring.

200 **Preparing acyclic carbon to carbon unsaturation containing compound:**
This subclass is indented under subclass 190. Process wherein the compound prepared contains carbon to carbon unsaturation which is not part of a ring.

201 **Oxygen containing organic compound reactant:**
This subclass is indented under subclass 190. Process wherein an organic oxygen containing compound is a source of carbon or halogen in the product.

202 **Isomerization:**
This subclass is indented under subclass 190. Process wherein a compound is converted into another compound of differing structure but of the same empirical formula as the starting compound.

203 **Oxyhalogenation:**
This subclass is indented under subclass 190. Process wherein an elemental oxygen and hydrogen halide are reacted to produce halogen in situ and introduce halogen into a benzene ring containing compound.

(1) Note. The hydrogen halide may be introduced, as such, or may be produced in situ, for instance, as a by-product.

204 Dehalogenation or dehydrohalogenation:
This subclass is indented under subclass 190. Process wherein a halogen atom or a molecule of hydrogen halide is removed from a compound to prepare a compound classified thereunder.

205 Of alicyclic ring to prepare benzene ring:
This subclass is indented under subclass 204. Process wherein halogen or hydrogen halide is removed from an alicyclic ring to produce a benzene ring.

206 Bonding halogen directly to benzene ring:
This subclass is indented under subclass 190. Process wherein halogen is bonded directly to a carbon atom of a benzene ring.

207 Chlorination:
This subclass is indented under subclass 206. Process wherein chlorine is the halogen bonded to a benzene ring.

208 Catalyst utilized:
This subclass is indented under subclass 207. Process employing a catalyst.

209 Sulfur containing catalyst:
This subclass is indented under subclass 208. Process wherein the catalyst contains sulfur.

210 Metal halide containing catalyst:
This subclass is indented under subclass 208. Process wherein the catalyst contains an atom of metal and an atom of halogen.

211 Purification or recovery:
This subclass is indented under subclass 190. Process wherein a benzene ring containing compound is purified or recovered.

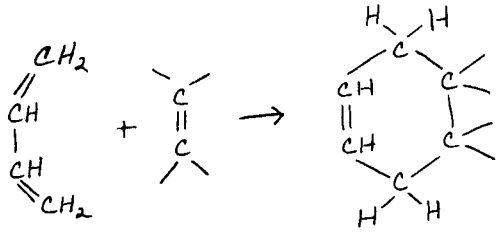
212 Forming alicyclic ring from benzene ring:
This subclass is indented under subclass 101. Process wherein a benzene ring is converted to an alicyclic ring, e.g., addition chlorination of benzene to produce 1,2,3,4,5,6-hexachlorocyclohexane.

213 Purification or recovery of 1,2,3,4,5,6-hexachlorocyclohexane (i.e., benzene hexachloride):
This subclass is indented under subclass 101. Process wherein a 1,2,3,4,5,6-hexachlorocyclohexane is separated from a mixture or in which impurities are separated from said compound.

(1) Note. Many patents in this subclass relate to the separation of the various isomers of this compound.

214 Ring formation, ring expansion or contraction or bonding one alicyclic ring directly or indirectly to another alicyclic ring:
This subclass is indented under subclass 101. Process wherein a new alicyclic ring is created which did not exist in any of the reactants, wherein the number of carbon atoms in a ring is increased or decreased, or wherein an alicyclic ring is bonded directly or indirectly to another alicyclic ring.

215 Diels-alder reaction:
This subclass is indented under subclass 214. Process wherein a conjugated diene is reacted with carbon to carbon unsaturation to produce a new six member carbocyclic ring, e.g., see struture below.



(1) Note. Either the conjugated diene or the unsaturated compound may already be part of a carbocyclic ring, in which case, a polycyclo compound results. Also, a triple bond may be employed instead of a double bond, in which case, an additional double bond will be found in the product.

216 Processes of preparing, purifying, or recovering unsaturated compound:
This subclass is indented under subclass 101. Process wherein a compound containing carbon to carbon unsaturation is prepared, purified, or recovered.

217 From carbon source other than hydrocarbon, halocarbon, or halohydrocarbon:
This subclass is indented under subclass 216. Process wherein at least one atom of carbon in the product is derived from a substance other than a compound of carbon and hydrogen, carbon and halogen, or a compound of carbon, hydrogen, and halogen.

218 Decreasing the number of carbon atoms in the compound:
This subclass is indented under subclass 216. Process wherein the compound formed has fewer carbon atoms than a compound which is a source of carbon.

219 Plural diverse reactions in separate zones:
This subclass is indented under subclass 216. Process wherein different reactions are carried out in different zones.This subclass requires that at least one different reactant is added in a latter zone.

(1) Note. Mere plural addition of more of the same ingredient in a subsequent zone, e.g., multistage halogen addition, etc., will not place a patent in this or indented subclasses.

(2) Note. While at least one reaction must produce compound as required by subclass 216, the other diverse reaction may be of any type, e.g., preparation of halogenating agent by chemical reaction.

220 Dehalogenation or dehydrohalogenation with halogenation in separate zones:
This subclass is indented under subclass 219. Process wherein one step removes an atom of halogen or hydrogen and halogen, and another step introduces an atom of halogen.

(1) Note. These steps may take place in any order.

221 Acetylene reactant:
This subclass is indented under subclass 220. Process wherein acetylene is employed in a step in such a way that is becomes a source of carbon in the final product.

222 Including oxyhalogenation or oxidation with elemental oxygen:
This subclass is indented under subclass 220. Process wherein one step includes reaction with a mixture of elemental oxygen and hydrogen halide whereby halogen is generated in situ or in which a step includes oxidation with elemental oxygen, e.g., of copper halide melt, etc.

223 Including oxyhalogenation or oxidation with elemental oxygen:
This subclass is indented under subclass 219. Process wherein one step includes reaction with a mixture of elemental oxygen and hydrogen halide whereby halogen is generated in situ or in which a step includes oxidation with elemental oxygen, e.g., of copper halide melt, etc.

224 Oxyhalogenation:
This subclass is indented under subclass 216. Process which includes reaction with a mixture of elemental oxygen and hydrogen halide whereby halogen is generated in situ.

225 Liquid medium or inorganic melt utilized:
This subclass is indented under subclass 224. Process wherein the reaction takes place in a liquid medium or inorganic melt.

226 Dehydrohalogenation:
This subclass is indented under subclass 216. Process wherein a molecule of hydrogen halide is removed from a compound.

227 Catalyst utilized:
This subclass is indented under subclass 226. Process employing a catalyst.

228 Catalyst in liquid phase:
This subclass is indented under subclass 227. Process wherein the catalyst is employed in a liquid phase.

229 Including chemical reaction with by-product hydrogen halide:
This subclass is indented under subclass 226. Process wherein a substance is present to react with the hydrogen halide removed from the compound.

(1) Note. This substance may be a base which react to form a salt, e.g., NaOH or an amine, etc., or an alcohol which reacts to form an alkyl halide, etc.

230 Dehalogenation or dehydrogenation:
This subclass is indented under subclass 216. Process wherein an atom of halogen or an atom of hydrogen is removed from a compound which is a source of carbon in the product.

231 Addition reaction of free halogen or hydrogen halide to carbon to carbon unsaturation:
This subclass is indented under subclass 216. Process wherein two atoms of elemental halogen or a molecule of hydrogen halide is added to carbon to carbon unsaturation, thus decreasing the degree of unsaturation in a compound.

(1) Note. The final product must still contain carbon to carbon unsaturation.

232 To triple bond:
This subclass is indented under subclass 231. Process wherein elemental halogen or hydrogen halide is added to a triple bond.

233 To acetylene:
This subclass is indented under subclass 232. Process wherein the triple bond containing compound is acetylene, per se.

234 Elemental halogen reactant:
This subclass is indented under subclass 216. Process wherein elemental halogen is employed as a source of halogen in the product.

235 Metal halide reactant:
This subclass is indented under subclass 216. Process wherein a compound containing metal and halogen is employed as a source of halogen in the product.

236 Isomerization:
This subclass is indented under subclass 216. Process wherein a compound is converted into another compound of differing structure but of the same empirical formula as the starting compound.

237 Increasing the number of carbon atoms in the compound:
This subclass is indented under subclass 216. Process wherein the final product contains more carbon atoms in a molecule than any of the reactants.

238 Purification or recovery:
This subclass is indented under subclass 216. Process wherein a compound containing carbon to carbon unsaturated is separated from a mixture or in which impurities are separated from said compound.

239 Including contact with solid agent:
This subclass is indented under subclass 238. Process wherein the purification or recovery includes a step of contacting with a substance which remains solid throughout the process and which substance effects purification or recovery, e.g., sorption, etc.

240 Preparing from elemental carbon, inorganic carbide, carbon disulfide, or carbon oxide:
This subclass is indented under subclass 101. Process wherein elemental carbon, an inorganic carbide, carbon disulfide, or a carbon oxide is employed as a source of carbon in the product.

241 Preparing utilizing plural diverse reactions in separate zones:
This subclass is indented under subclass 101. Process wherein different reactions are carried out in different zones.This subclass requires that at least one different reactant is added in a latter zone.

(1) Note. Mere plural addition of more of the same ingredient in a subsequent zone, e.g., multistage halogen addition, etc., will not place a patent in this or the indented subclass.

(2) Note. While at least one reaction must produce a compound under subclass 101,

the other diverse reaction may be any type, e.g., preparation of halogenating agent by chemical reaction, etc.

242 Addition reaction of hydrogen chloride to carbon to carbon unsaturation with chlorination in separate zone:
This subclass is indented under subclass 241. Process wherein in one zone hydrogen chloride is added to carbon to carbon unsaturation and in another zone chlorine replaces hydrogen in the same compound.

(1) Note. These reactions may occur in any order.

243 Preparing by oxyhalogenation:
This subclass is indented under subclass 101. Process which includes reaction with a mixture of hydrogen halide and elemental oxygen whereby halogen is generated in situ.

244 Liquid medium or inorganic melt utilized:
This subclass is indented under subclass 243. Process wherein the reaction takes place in a liquid medium or an inorganic melt.

245 Fixed bed catalyst utilized:
This subclass is indented under subclass 243. Process wherein the catalyst is solid and remains in a fixed position relative to the apparatus during the reaction.

246 Preparing by addition of elemental halogen, interhalogen compound, or hydrogen halide to carbon to carbon unsaturation:
This subclass is indented under subclass 101. Process wherein elemental halogen, an interhalogen compound, or hydrogen halide is added to carbon to carbon unsaturation, thus reducing the degree of unsaturation.

247 Catalyst or reaction directing agent utilized:
This subclass is indented under subclass 246. Process including a catalyst which promotes the reaction or an agent which causes the addition to take place in a particular way to favor the production of one possible product over another.

248 Hydrogen halide reactant:
This subclass is indented under subclass 247. Process wherein hydrogen halide is added to carbon to carbon unsaturation.

249 Nonmetallic catalyst or reaction directing agent utilized:
This subclass is indented under subclass 248. Process wherein the catalyst or reaction directing agent does not contain any atoms of a metal.

250 Catalyst or reaction directing agent:
This subclass is indented under subclass 248. Containing a Group VIII Metal Utilized: Process wherein the catalyst or reaction directing agent contains an atom of a Group VIII metal.

251 All reactants in vapor phase:
This subclass is indented under subclass 246. Process wherein all reactants are in the vapor phase in the reaction zone.

252 Elemental halogen reactant:
This subclass is indented under subclass 101. Process wherein elemental halogen is employed as a source of halogen in the product.

253 Catalyst or reaction directing agent utilized:
This subclass is indented under subclass 252. Process including a catalyst which promotes the reaction or an agent which causes the reaction to take place in a particular way to favor one possible product over another.

254 Inorganic metal containing catalyst or reaction directing agent utilized:
This subclass is indented under subclass 253. Process wherein the catalyst or reaction directing agent contains a metal atom and no organic material.

255 All reactants in vapor phase:
This subclass is indented under subclass 252. Process wherein all reactants are in the vapor phase in the reaction zone.

256 Isomerization:
This subclass is indented under subclass 101. Process wherein a compound is converted to another compound of differing structure but of the same empirical formula as the starting compound.

257 Preparing by increasing the number of carbons in the compound:
This subclass is indented under subclass 101. Process wherein the final product contains more than carbon atoms in a molecule than any of the reactants.

258 Preparing by reacting hydrogen halide with a compound which contains hydroxy bonded directly to carbon:
This subclass is indented under subclass 101. Process wherein a hydroxy group bonded directly to carbon is reacted with hydrogen halide to replace the hydroxy group with halogen.

259 Preparing by reacting ether with hydrogen halide:
This subclass is indented under subclass 101. Process wherein an ether is reacted with hydrogen halide to replace the oxygen atom with halogen.

260 Preparing by halogen exchange:
This subclass is indented under subclass 101. Process wherein a halogen atom in a compound is replaced with a different halogen.

261 Halogen source is a compound other than hydrogen halide:
This subclass is indented under subclass 101. Process wherein a source of halogen in there product is a compound other than hydrogen halide, e.g., NH_4Cl,etc.

(1) Note. Include hereunder is the transfer of halogen from one organic compound to another to produce a product for this class, e.g., transhalogenation, etc.

262 Purification or recovery:
This subclass is indented under subclass 101. Process wherein a halogen containing compound is separated from a mixture or in which impurities are separated from said compound.

263 Liquid-liquid extraction:
This subclass is indented under subclass 262. Process wherein a substance is transferred from one liquid phase to another liquid phase essentially insoluble in the first liquid phase.

264 Preservation or stabilization treatment:
This subclass is indented under subclass 101. Process of treating a compound to increase its stability or prevent or reduce deterioration.

(1) Note. This process may include contacting with a chemical agent or a physical treatment, e.g., heating, etc.

SEE OR SEARCH THIS CLASS, SUBCLASS:

102+, for a process of adding an agent as a preservative or stabilizer which remains with the compound.

211, 238+ and 262+, for processes of increasing the stability of a compound by purification.

END